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APPLICATION FOR UNITED STATES LETTERS PATENT

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TITLE:               ROTARY TRIMMER  
                          WITH MULTIPLE BLADES

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## ROTARY TRIMMER WITH MULTIPLE BLADES

### 5 TECHNICAL FIELD

The technical field of this disclosure is cutting and trimming devices, particularly, a rotary trimmer with multiple blades.

### BACKGROUND OF THE INVENTION

10 Trimmers are used to cut paper and other sheet materials such as cardboard, leather, fabric, plastics, and similar materials. In a rotary trimmer, a sharp rotary blade, mounted in a housing, is rolled across the cutting board to cut various materials.

Depending on the desired cut, different blades are being  
15 used. A straight cut may be desirable for trimming the sheet of paper. A decorative cut with a wave edge may be chosen for craft projects, such as scrapbooks. A zigzag edge may be desirable when cutting fabric to avoid fraying. A perforated cut can be used to make tear away forms. Many patterns are useful or desirable for many different applications and each  
20 application requires a different blade.

The rotary trimmers that are known to the art are of two types: those that allow blade replacement, and those having a fixed blade. Those rotary trimmers that allow blade replacement require that one blade be manually replaced with another blade.

25 The main drawback of the manual replacement is in its complexity: the user dismounts the installed blade, mounts the new blade,

and stores the old blade. In many cases, the opening and closing of a housing of the cutting assembly is also required.

The U.S. Patent No. 5,322,001 to Boda, issued on June 21, 1994, discloses a rotary type trimmer with the replaceable blades having a recess in the cutting board for storing the various cutting blades.

Another drawback of the known trimmers lays in the fact that the user handles an exposed blade at a risk of being cut. Therefore, children are unable to change the cutter and, thereby, the cut pattern.

Still another drawback is in the need to store the blades and the risk that the blades are lost.

It would be desirable to have a rotary trimmer with two, or more than two, blades in the same housing, each blade already positioned perpendicularly to, and in line with, the cutting surface and thereby readily positioned for the immediate deployment.

## SUMMARY OF THE INVENTION

One aspect of the present invention provides a rotary trimmer with multiple blades not requiring a manual blade change.

Another aspect of the present invention provides a rotary trimmer with multiple blades positioned for the immediate deployment.

Still another aspect of the present invention provides a rotary trimmer with blades that can be used by anyone without risking the injury.

The foregoing and other features and advantages of the invention will become further apparent from the following detailed

description of the presently preferred embodiments, read in conjunction  
with the accompanying drawings. The detailed description and drawings  
are merely illustrative of the invention, rather than limiting the scope of  
the invention being defined by the appended claims and equivalents  
5 thereof.

### BRIEF DESCRIPTION OF THE DRAWINGS

**FIG. 1** shows a perspective view of a rotary trimmer with  
10 multiple blades made in accordance with the present invention.

**FIG. 2** shows a perspective view of a cutting assembly of a  
rotary trimmer with multiple blades made in accordance with the present  
invention.

**FIG. 3** shows a cross-section view of a cutting assembly of a  
15 rotary trimmer with multiple blades made in accordance with the present  
invention.

### DRAWINGS – REFERENCE NUMERALS

20

1	rotary trimmer
2	base
3	right end retainer
4	left end retainer
25 5	rail

	6	cutting assembly
	7	self-healing strip
	8	right blade
	9	right guard
5	10	left blade
	11	left guard
	12	front housing
	13	back housing
	14	spring
10	15	pusher
	16	slider

#### DESCRIPTION OF THE PRESENTLY PREFERRED EMBODIMENT

15                   The rotary trimmer with multiple blades of the present invention comprises a base with end retainers supporting a rail, and a cutting assembly moveably disposed on the rail. The movement of the cutting assembly includes a sliding motion along the rail, and a reclining motion where one side of the cutting assembly is reclining against the rail, 20 and the other side is lifting.

                  The reclining motion provides for switching between different blades. The different blades can have different cutting edges such as a straight, wave, perforating, or zigzag edge. The reclining motion moves the desired blade downward to engage a self-healing strip. 25 The same motion extends a guard into a position of complete coverage of

the exposed blade. The sliding motion rolls the blade along the self-healing strip for cutting paper or another sheet material.

**FIG. 1** shows a perspective view of a rotary trimmer with multiple blades made in accordance with the present invention. The rotary trimmer **1** comprises a base **2** sandwiched between right end retainer **3** and a left end retainer **4**, a rail **5** slidably supported by these retainers, and a cutting assembly **6** slidably and reclinably disposed on the rail **5**. A self-healing strip **7**, recessed in the base **2**, receives one of the blades during cutting.

**FIG. 2** shows a perspective view of the cutting assembly **6** made in accordance with the present invention. A right blade **8** protected by a right guard **9**, and a left blade **10** protected by a left guard **11**, are rotatably sandwiched between a front housing **12** and a back housing **13**. Although only two blades are presented on the preferred embodiment, those skilled in the art will appreciate that more than two blades can be employed without departing from the spirit of the invention.

The right guard **9** and the left guard **11** are slidably sandwiched between the front housing **12** and the back housing **13**.

**FIG. 3** shows a cross-section view of the preferred embodiment of the cutting assembly made in accordance with the present invention. The front housing **12** has two compartments each receiving a spring **14** with a pusher **15**. A slider **16** is slidably assembled on the rail

**5** and rotatably sandwiched between the front housing **12** and the back housing **13**. By bottoming out against the slider **16**, the pushers provide for a non-cutting position of the cutting assembly **6** with both blades positioned above the self-healing strip.

5                   The application of force to one of the sides of the cutting assembly **6** results in the reclining of this side of the cutting assembly **6** against the base with the blade on the reclining side engaging the healing strip **7**. Simultaneously, the guard of the lifting side of the cutting assembly **6** is forced outward by the slider **16** into a position where it  
10 provides a full protection for user from the exposed blade.

                  The following sliding motion of the reclined cutting assembly **6** along the rail **5** provides for a cut with the pre-selected blade.